

Serial No. 09/887,742
Amdt. Dated 9/22/03

REMARKS/ARGUMENTS

Claims 26-41 are pending in the application. In the Office Action, the Examiner rejected claims 26 and 27 and objected to claims 28-41. New claims 42-45 have been added specifying that the drying step may be by freeze-drying or solvent drying. Support for these claims may be found in the specification, e.g., on page 6, lines 19-21.

Specifically, claims 28-41 were objected to as being dependent upon a rejected base claim, but allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Examiner is thanked for indicating the allowable subject matter. Claims 28-41 have been rewritten in such fashion.

Claims 26 and 27 were rejected under §103(a) as unpatentable over U.S. 4,412,947 (Cioca) in view of U.S. 3,157,524 (Artandi) for the following reasons:

Cioca discloses the basic claimed process of making biopolymer sponges by placing an aqueous dispersion of a biopolymer (collagen) into a tray (i.e., mold), freezing the dispersion on the tray, and (freeze)-drying the frozen dispersion on the tray. Essentially, the primary reference lacks a clear showing of heating the tray to remove the frozen dispersion therefrom before it is freeze-dried. It is first of all submitted to have been obvious to one of ordinary skill in the art that the removal of a frozen dispersion from a tray or mold would require some kind of warming operation to reduce the adhesion of the dispersion and the mold. Hence, should one find it desirable to remove the frozen dispersions in Cioca, it would have been obvious to have warmed the tray or the frozen dispersion to some extent. At any rate, Artandi shows the formation of frozen collagen dispersions in stainless steel forms which are frozen and the frozen blocks removed from the containers and subsequently processed (water extraction) prior to drying. Clearly, Artandi shows removing the frozen blocks from the steel forms or molds, and it would appear that such occurs to maximize the surface area of the block available for subsequent treatment. It would have been obvious to one of ordinary skill in the art at the time of invention to have modified the method of the primary reference as taught by Artandi to make more of the surface of the molded frozen collagen available for subsequent drying. Artandi (col. 2, line 17) teaches tubular molds as set forth in instant claim 27 as such is seen to have been an obvious modification to the tray of the primary reference dependent on the final shape of the sponge.

The rejection is traversed and the Examiner is respectfully requested to reconsider this rejection.

While the Examiner recognizes that Cioca "lacks a clear showing of heating to remove the frozen dispersion therefrom before it is freeze-dried" it is not necessarily obvious that one skilled in the art would heat a mold to remove a frozen dispersion and then freeze-dry the frozen dispersion. In contrast, it would appear more logical that once the dispersion is frozen, one skilled in the art would not want to apply heat before performing the freeze-drying step. While the Examiner cites Artandi for teaching that tubes may be formed in molds, there is no teaching of heating the mold prior to drying. Also while Artandi discloses removal of frozen blocks being removed from containers, there is no teaching of how the frozen blocks are removed from containers. Artandi repeatedly discloses in its examples that the frozen dispersions are "transferred in the frozen condition" (from the trays). There is clearly no suggestion of heating. Based on the foregoing, the Examiner is respectfully requested to withdraw the §103 rejection of claims 26 and 27.

Favorable consideration and early notice of allowance are earnestly solicited. If any questions arise which can be disposed through interview, the Examiner is encouraged to contact Applicants' attorney at the telephone number listed below.

Please charge any fees which may be required for this submission to Johnson & Johnson Deposit Account No. 10-0750/JJM-575/TJS.

Respectfully submitted,

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